

5 CLAIMS

1. A system for controlling a remotely located electrical device comprising:
  - (a) a transmitter suitable to receive a first signal indicating the desired state of said electrical device and in response thereto provide an optical signal;
  - (b) an enclosure including a first device that selectively provides electrical power to said electrical device;
  - (c) a receiver suitable to receive said optical signal and in response thereto selectively provide a second signal to said first device to said provide electrical power to said electrical device; and
  - (d) wherein said optical signal passes from outside said enclosure to within said enclosure.
2. The system of claim 1 wherein said transmitter is located outside said enclosure.
3. The system of claim 1 wherein said receiver is located within said enclosure.
4. The system of claim 1 wherein said first signal is less than approximately 24 volts.

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5. The system of claim 1 wherein the voltage of said first signal is less than the voltage of said second signal.

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6. The system of claim 5 wherein the voltage of said first signal is approximately 24 volts and said second signal is approximately 120 volts.

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7. The system of claim 1 wherein said transmitter and said receiver are free from including a mechanical switching mechanism.

8. The system of claim 7 wherein said switching mechanism is a relay.

9. The system of claim 1 wherein the optical path of said optical signal is free from receiving additional light from a source other than said transmitter.

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10. The system of claim 1 wherein said optical signal is infra-red.

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11. The system of claim 1 wherein said optical signal is at least one of modulated, includes a carrier signal, has different frequencies, pulsed.

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12. The system of claim 1 wherein said optical signal is provided to a plurality of said receivers.

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13. The system of claim 12 wherein each of said receivers is associated with a different electrical device to which power is selectively provided.

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14. The system of claim 13 wherein each of said receivers determines if said optical signal is intended for its associated electrical device.

15. The system of claim 1 wherein said receiver is electrically connected to said first device in a manner free from a wire between a connector of said receiver and a connector of said first device.

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16. A method for controlling a remotely located electrical device comprising:

- (a) providing an enclosure including a first device that selectively provides electrical power to said electrical device;
- (b) a transmitter receiving a first signal indicating the desired state of said electrical device and in response thereto providing an optical signal;

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- (c) a receiver receiving said optical signal and in response thereto

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selectively said provides electrical power to said electrical device;  
and

- (d) wherein said optical signal passes from outside said enclosure to  
within said enclosure.

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17. The method of claim 16 wherein said transmitter is located outside  
said enclosure.

18. The method of claim 16 wherein said receiver is located within said  
enclosure.

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19. The system of claim 16 wherein said first signal is less than  
approximately 24 volts.

20. The method of claim 16 wherein the voltage of said first signal is  
less than the voltage of said second signal.

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21. The method of claim 20 wherein the voltage of said first signal is  
approximately 24 volts and said second signal is approximately 120  
volts.

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22. The method of claim 20 wherein said transmitter and said receiver

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are free from including a mechanical switching mechanism.

23. The method of claim 22 wherein said switching mechanism is a relay.

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24. The method of claim 16 wherein the optical path of said optical signal is free from receiving additional light from a source other than said transmitter.

25. The method of claim 16 wherein said optical signal is infra-red.

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26. The method of claim 16 wherein said optical signal is at least one of modulated, includes a carrier signal, has different frequencies, pulsed.

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27. The method of claim 16 wherein said optical signal is provided to a plurality of said receivers.

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28. The method of claim 27 wherein each of said receivers is associated with a different electrical device to which power is selectively provided.

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29. The method of claim 28 wherein each of said receivers determines if said optical signal is intended for its associated electrical device.

30. A system for controlling a remotely located electrical device comprising:

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(a) a transmitter suitable to receive a first signal indicating the desired state of said electrical device and in response thereto provide an optical signal;

(b) an enclosure including a first device that selectively provides electrical power to said electrical device;

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(c) a receiver suitable to receive said optical signal and in response thereto selectively provide a second signal to said first device to said provide electrical power to said electrical device; and

(d) wherein said optical signal passes though at least a portion of the wall of said enclosure.

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31. The system of claim 30 wherein said optical signal passes from outside said enclosure to within said enclosure.

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32. The system of claim 30 wherein said transmitter is located outside said enclosure.

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33. The system of claim 30 wherein said receiver is located within said enclosure.

34. The system of claim 30 wherein said first signal is less than approximately 24 volts.

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35. The system of claim 30 wherein the voltage of said first signal is less than the voltage of said second signal.

36. The system of claim 35 wherein the voltage of said first signal is approximately 24 volts and said second signal is approximately 120 volts.

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37. The system of claim 30 wherein said transmitter and said receiver are free from including a mechanical switching mechanism.

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38. The system of claim 37 wherein said switching mechanism is a relay.

39. The system of claim 30 wherein the optical path of said optical signal is free from receiving additional light from a source other than said transmitter.

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40. The system of claim 30 wherein said optical signal is infra-red.

41. The system of claim 30 wherein said optical signal is at least one of modulated, includes a carrier signal, has different frequencies, pulsed.

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42. The system of claim 30 wherein said optical signal is provided to a plurality of said receivers.

43. The system of claim 42 wherein each of said receivers is associated with a different electrical device to which power is selectively provided.

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44. The system of claim 43 wherein each of said receivers determines if said optical signal is intended for its associated electrical device.

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45. The system of claim 30 wherein said receiver is electrically connected to said first device in a manner free from a wire between a connector of said receiver and a connector of said first device.

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46. A system for controlling a remotely located electrical device comprising:



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(a) a transmitter suitable to receive a first signal indicating the desired state of said electrical device and in response thereto provide an optical signal;

(b) an enclosure including a first device that selectively provides electrical power to said electrical device;

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(c) a receiver suitable to receive said optical signal and in response thereto selectively provide a second signal to said first device to said provide electrical power to said electrical device; and

(d) wherein said optical signal electrically isolates said transmitter and said receiver.

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47. The system of claim 46 wherein said optical signal passes from outside said enclosure to within said enclosure.

48. The system of claim 45 wherein said transmitter is located outside said enclosure.

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49. The system of claim 45 wherein said receiver is located within said enclosure.

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50. The system of claim 45 wherein said first signal is less than approximately 24 volts.

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51. The system of claim 45 wherein the voltage of said first signal is less than the voltage of said second signal.

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52. The system of claim 51 wherein the voltage of said first signal is approximately 24 volts and said second signal is approximately 120 volts.

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53. The system of claim 45 wherein said transmitter and said receiver are free from including a mechanical switching mechanism.

54. The system of claim 53 wherein said switching mechanism is a relay.

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55. The system of claim 45 wherein the optical path of said optical signal is free from receiving additional light from a source other than said transmitter.

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56. The system of claim 45 wherein said optical signal is infra-red.

57. The system of claim 45 wherein said optical signal is at least one of modulated, includes a carrier signal, has different frequencies, pulsed.

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58. The system of claim 45 wherein said optical signal is provided to a plurality of said receivers.

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59. The system of claim 58 wherein each of said receivers is associated with a different electrical device to which power is selectively provided.

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60. The system of claim 59 wherein each of said receivers determines if said optical signal is intended for its associated electrical device.

61. The system of claim 45 wherein said receiver is electrically connected to said first device in a manner free from a wire between a connector of said receiver and a connector of said first device.

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62. The system of claim 45 wherein said receiver includes a line conductor, a load conductor, and is free from including a neutral conductor.

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63. The system of claim 1 wherein said receiver includes a line conductor, a load conductor, and is free from including a neutral conductor.

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64. The method of claim 16 wherein said receiver includes a line conductor, a load conductor, and is free from including a neutral conductor.

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65. The system of claim 30 wherein said receiver includes a line conductor, a load conductor, and is free from including a neutral conductor.

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66. The system of claim 30 wherein said transmitter is proximate said enclosure.

67. The system of claim 66 wherein said receiver is proximate said enclosure.

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68. The system of claim 1 wherein said transmitter is proximate said enclosure.

69. The system of claim 68 wherein said receiver is proximate said enclosure.

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70. The method of claim 16 wherein said transmitter is proximate said enclosure.

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71. The method of claim 70 wherein said receiver is proximate said enclosure.

72. The system of claim 45 wherein said transmitter is proximate said enclosure.

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73. The system of claim 72 wherein said receiver is proximate said enclosure.

74. The system of claim 73 wherein said receiver is proximate said enclosure.